



Australian Bureau of Statistics

6265.0 - Underemployed Workers, Australia, Sep 2005

Previous ISSUE Released at 11:30 AM (CANBERRA TIME) 23/03/2006

Summary

Main Features

NOTES

ABOUT THIS PUBLICATION

This publication presents information about underemployed workers. The number of underemployed workers is an important component of underutilised labour resources in the economy, along with the number of unemployed and some people with marginal attachment to the labour force. A range of information is presented on underemployed workers including the number of hours usually worked, number of preferred hours, steps taken to find work with more hours, and difficulties finding work with more hours.

The statistics in this publication were compiled from the Underemployed Workers Survey, conducted throughout Australia in September 2005 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS).

Data from the survey relate to all employed people aged 15 years and over. People who worked less than 35 hours in the week prior to the survey (i.e. the reference week) and who would have preferred to work more hours, were asked about whether they were available to start work with more hours, whether they were looking for work with more hours, and their experience in looking for work with more hours. Other information sought included the duration of the current period of insufficient work and the number of extra hours preferred.

CHANGES IN THIS ISSUE

The populations for tables 5 to 8 have been changed in this issue based on client feedback. In previous issues, the populations for these tables were 'Part-time workers who want more hours' (table 5) and 'Part-time workers looking for, or available to start work with, more hours' (tables 6, 7 and 8). In the 2005 issue the population for tables 5 to 8 is 'Underemployed part-time workers' (i.e. part-time workers who would prefer more hours and are available to start work with more hours). Time-series tables with both the old and new populations for 2000-2005 will be released on Tuesday 28 March 2006.

ROUNDING

As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Labour Market Section on Canberra (02) 6252 7206.

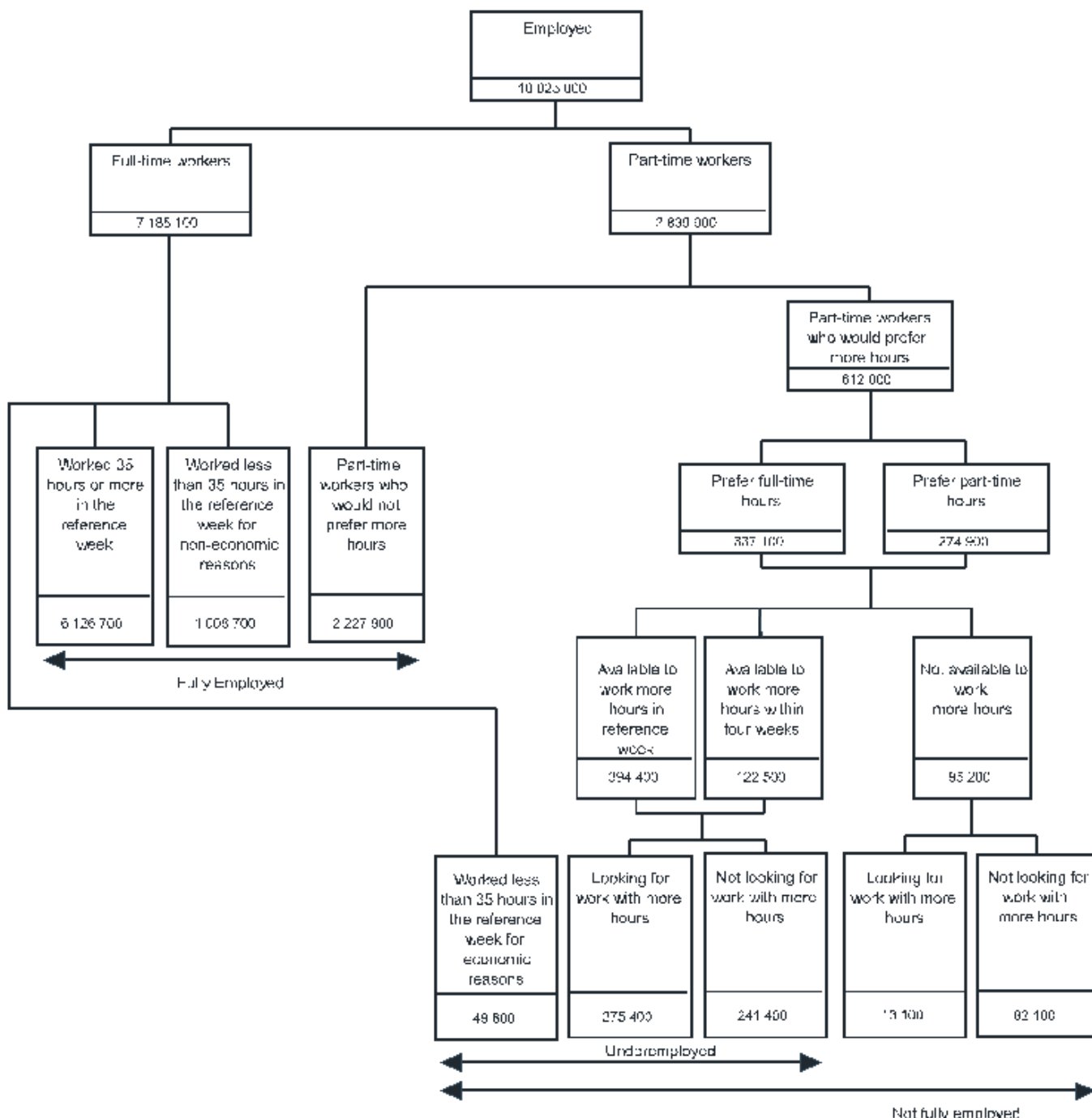
CONCEPTUAL FRAMEWORK

CONCEPTUAL FRAMEWORK

The ABS conceptual framework for underemployment separates employed people into two mutually exclusive groups:

- workers who are fully employed
- workers who are not fully employed, comprising:
 - part-time workers who would prefer to work more hours
 - full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available).

Fully employed workers comprise: employed people who worked full time during the reference week (includes people who usually work part time); employed people who usually work full time but worked part time in the reference week for non-economic reasons (including illness or injury, leave, holiday or flextime, and personal reasons); and part-time workers (usually work part time and did so in the reference week) who would not prefer additional hours of work.



The ABS underemployment framework classifies people who are not fully employed into a number of groups based on whether they are available and/or looking to start work with more hours. The framework separately identifies part-time workers who would prefer full-time hours and those who would prefer more part-time hours. These people are further classified according to whether they were available to start extra work (either in the reference week or in the four weeks subsequent to the survey), and whether they had looked for extra work during the four weeks prior to the survey.

People who usually work full time, but worked part time in the reference week for economic reasons, are separately identified in the underemployment framework. It is assumed that these people would prefer to work full time in the reference week and would have been available to do so.

DEFINITION OF UNDEREMPLOYMENT

The ABS definition of the underemployed is 'employed people who want, and are available for, more

hours of work than they currently have'. This is consistent with the International Labour Organisation (ILO) definition of time-related underemployment.

According to the ILO definition adopted in 1998, time-related underemployment exists when the hours of work of an employed person are below a threshold, and are insufficient in relation to an alternative employment situation in which the person is willing and available to engage. More specifically, people in time-related underemployment comprise all employed people (as defined) who satisfy the following three criteria:

- availability to work additional hours, within a specified subsequent period
- willingness to work additional hours - the ILO recommends that those who have actively sought to work additional hours should be distinguished from those who have not
- worked less than a threshold (determined according to national circumstances) relating to working time - the ABS underemployment framework uses a threshold (35 hours in the reference week) based on the boundary between full-time and part-time work.

UNDEREMPLOYED WORKERS SURVEY

The Underemployed Workers Survey is the primary ABS data source on underemployment. It provides a wide range of information about underemployed workers, including information on the number of hours usually worked, number of preferred hours, steps taken to find work with more hours, and difficulties finding work with more hours. Summary information on underemployed workers is also collected in the Labour Force Survey (LFS) on a quarterly basis.

SUMMARY OF FINDINGS

OVERVIEW

There were 10,025,000 employed people aged 15 years and over in September 2005. Of these:

- 612,000 (6.2%) usually worked part time and would have preferred to work more hours
- 566,600 (5.9%) were underemployed workers, comprising:
 - 516,800 who usually worked part time but would prefer more hours and were available to start work with more hours either in the reference week, or in the four weeks subsequent to the interview
 - 49,800 who usually worked full time but worked part-time hours in the reference week due to economic reasons (being stood down, on short time, or having insufficient work). The majority (78%) of these were men.

PART-TIME WORKERS WHO WOULD PREFER MORE HOURS

In September 2005, there were 2,839,900 part-time workers. Of these, 22% (612,000) would have preferred to work more hours and this was higher for men (26%) than for women (20%). A similar pattern occurred in previous years.

Of the part-time workers who would prefer to work more hours, the majority (55%) would prefer to work full time. For men, the proportion who preferred to work full time was 67% compared to 49% for women.

UNDEREMPLOYED PART-TIME WORKERS

Underemployed part-time workers are people who usually work less than 35 hours, would prefer to work more hours and are available to work more hours. Of the 516,800 underemployed part-time workers, 53% (275,400) had looked for work with more hours at some time during the four weeks up to the end of the reference week.

Women made up 66% of underemployed part-time workers, compared with 62% in September 2004. Of those underemployed part-time workers who were women, only half (169,700) were looking for more hours in the reference week or within four weeks.

The median duration of the current period of insufficient work for underemployed part-time workers was 26 weeks. For women aged 45-54 years who were underemployed part-time workers, the median duration of insufficient work was 40 weeks. See the Glossary for the definition of **median duration of insufficient work**.

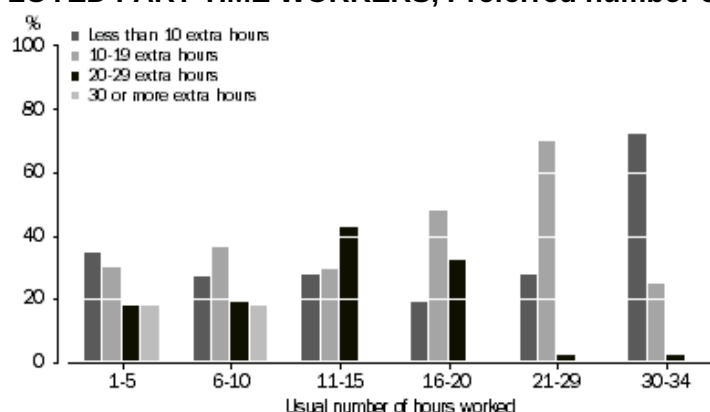
Of underemployed part-time workers:

- 42% would prefer to work 10-19 extra hours per week
- 32% would prefer to work less than 10 extra hours per week
- 20% would prefer to work 20-29 extra hours per week; and
- 6% would prefer to work an additional 30 hours or more per week.

The mean preferred number of extra hours each week, for underemployed part-time workers, was 14.4 hours. Men would prefer to work an average of 16.3 extra hours compared with an average of 13.3 extra hours for women. The mean preferred number of extra hours was highest for people aged 25-34 years (16.3 hours) and lowest for people aged 15-19 years (12.9 hours).

The number of additional hours preferred by part-time workers varied with the number of hours they usually worked. Generally, those usually working few hours wanted a greater number of additional hours than others. However, many did not want to work full-time hours, for example, 82% of those working 1-5 hours a week wanted fewer than 30 additional hours.

UNDEREMPLOYED PART-TIME WORKERS, Preferred number of extra hours



Underemployed part-time workers who looked for work with more hours were asked to report their main difficulty in finding work with more hours. The most commonly reported main difficulty in September 2005 was 'no vacancies in line of work' (19%). A further 10% reported 'unsuitable hours' as their main difficulty, and another 9% reported 'lacked necessary skills or education'.

The most common steps taken to find work with more hours were 'contacted prospective employers'

(64%), 'looked in newspapers' (62%) and 'asked current employer for more work' (54%). The proportion of people searching internet sites to find work with more hours increased from 26% in September 2002 to 42% in September 2005. This is the largest increase in frequency of all the steps taken to find work with more hours.

Most common steps taken by underemployed part-time workers to find work with more hours - September 2002 to 2005

	September 2002		September 2003		September 2004		September 2005	
	'000	%	'000	%	'000	%	'000	%
Contacted prospective employers	192.8	66	185.7	65	185.9	64	174.8	64
Looked in newspapers	168.3	57	165.6	58	170.0	58	171.8	62
Asked current employer for more work	155.1	53	168.1	59	162.3	56	147.5	54
Searched internet sites	75.7	26	81.5	29	92.4	32	116.1	42
Contacted friends or relatives	70.1	24	80.0	28	87.1	30	84.6	31
Answered a newspaper advertisement for a job	61.2	21	64.6	23	64.7	22	71.4	26
Registered with Centrelink	70.0	24	67.4	24	67.7	23	65.5	24

About this Release

Provides information on visible underemployment. Persons who worked less than 35 hours in the week prior to the survey who would have preferred to work more hours were asked about whether they were looking for work with more hours, available to start work with more hours, and their experience in looking for work with more hours. Other information includes, the duration of the current period of insufficient work, and the number of extra hours preferred. Estimates can be cross-classified by labour force demographics such as State, sex, age, marital status and birthplace.

Data for September 1994 and September 1995 are available as a standard data service (6265.0.40.001).

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 The statistics in this publication were compiled from data collected in the Underemployed Workers Survey conducted throughout Australia in September 2005 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS). Respondents to the monthly LFS who fell within the scope of the supplementary survey were asked further questions.

2 The publication **Labour Force, Australia** (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS, which also apply to supplementary surveys. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing relevant to both the monthly LFS and supplementary surveys.

3 From April 2001 the LFS has been conducted using a redesigned questionnaire containing

additional questions and some minor definitional changes. These changes also affect the supplementary surveys. For further details, see **Information Paper: Implementing the Redesigned Labour Force Survey Questionnaire** (cat. no. 6295.0) and **Information Paper: Questionnaires Used in the Labour Force Survey** (cat. no. 6232.0).

4 Information for this survey was collected using computer-assisted interviewing (CAI), whereby responses are recorded directly onto an electronic questionnaire via a notebook computer. The CAI method was implemented in the LFS progressively between October 2003 and August 2004.

5 The change of interviewing method is not expected to have affected the estimates in any meaningful way.

CONCEPTS, SOURCES AND METHODS

6 The conceptual framework used in Australia's LFS aligns closely with the standards and guidelines set out in the Resolutions of the International Conference of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in **Labour Statistics: Concepts, Sources and Methods** (cat. no. 6102.0.55.001) which is available on the ABS web site <<https://www.abs.gov.au>> (Methods, Classifications, Concepts & Standards).

SCOPE

7 The scope of the LFS is restricted to people aged 15 years and over and excludes the following people:

- members of the permanent defence forces
- certain diplomatic personnel of overseas governments, customarily excluded from the census and estimated populations
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants).

8 Students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons are excluded from all supplementary surveys.

9 This supplementary survey was conducted in both urban and rural areas in all states and territories, but excluded approximately 120,000 people living in very remote parts of Australia who would otherwise have been within the scope of the survey. The exclusion of these people will have only a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where such people account for around 23% of the population.

COVERAGE

10 The estimates in this publication relate to people covered by the survey in September 2005. In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey. See **Labour Force, Australia** (cat. no. 6202.0) for more details.

SAMPLE SIZE

11 Supplementary surveys are not always conducted on the full LFS sample. Since August 1994 the sample for supplementary surveys has been restricted to no more than seven-eighths of the LFS sample. Since it was introduced, this survey has been conducted on various proportional samples and therefore sampling errors associated with previous supplementary surveys may vary from the sampling error for this survey.

12 The initial sample for the September LFS consisted of 41,671 private dwelling households and special dwelling units. Of the 33,632 private dwelling households and special dwelling units that remained in the survey after sample loss (e.g. households selected in the survey which had no residents in scope for the LFS, vacant or derelict dwellings and dwellings under construction), approximately 30,790 or 91.5% were fully responding to the Underemployed Workers survey. The number of completed interviews obtained from these private dwelling households and special dwelling units (after taking into account scope, coverage and subsampling exclusions) was 33,144.

RELIABILITY OF THE ESTIMATES

13 Estimates in this publication are subject to sampling and non-sampling errors:

- Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For more information see the Technical Note.
- Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers, and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and effective processing procedures.

SEASONAL FACTORS

14 The estimates are based on information collected in the survey month and, due to seasonal factors, may not be representative of other months of the year.

CLASSIFICATIONS USED

15 Country of birth data are classified according to the **Standard Australian Classification of Countries (SACC), 1998** (cat. no. 1269.0).

16 Educational attainment data are classified according to **Australian Standard Classification of Education (ASCED)** (cat. no. 1272.0). See Appendix 1 for more information.

COMPARABILITY OF TIME SERIES

17 Revisions are made to population benchmarks for the LFS after each five-yearly Census of Population and Housing. The last such revision was made in February 2004 to take account of the results of the 2001 Census of Population and Housing. Estimates from supplementary surveys conducted from and including February 2004 are based on the revised population benchmarks.

18 Prior to September 1994, part-time workers who would prefer more hours of work were asked

whether they were available to start work with more hours within the subsequent four weeks. From September 1994, an additional question was added to also determine their availability to start work with more hours during the reference week. This question was added to the survey so that estimates of underemployment could be more easily aligned with the then current International Labour Organisation (ILO) recommendations on underemployment.

19 As part of the redesign in 2001 of the LFS questionnaire, people who were on short-term unpaid leave initiated by the employer, are now classified as employed. This approach is consistent with ILO recommendations on formal job attachment. Analysis of data from the LFS shows that many of these people usually worked part time, and that a number of these had a preference to work more hours. However, overall, these people contribute only marginally to the change in part-time workers who would prefer more hours.

20 From July 2004, a change has been made to the category 'considered too young or too old by employers' for the items 'all difficulties in finding work with more hours' and 'main difficulty in finding work with more hours'. The category has been split into 'considered too young by employers' and 'considered too old by employers'.

COMPARABILITY WITH MONTHLY LFS STATISTICS

21 Due to differences in the scope and sample size of this supplementary survey and that of the monthly LFS, the estimation procedure may lead to some small variations between labour force estimates from this survey and those from the monthly LFS.

COMPARABILITY WITH ILO DEFINITIONS

22 Comparability of the concepts and definitions used in the Underemployed Workers Survey are discussed in the Conceptual Framework on page 3. More detailed discussion is included in **Labour Statistics: Concepts Sources and Methods** (cat. no. 6102.0.55.001), Chapter 5, which is available on the ABS web site <<https://www.abs.gov.au>> (Methods, Classifications, Concepts & Standards).

PREVIOUS SURVEYS

23 The Underemployed Workers Survey was conducted in May 1985, 1988 and 1991. In 1994, the survey became an annual survey, collected each September. Results of previous surveys were published in: **Underemployed Workers, Australia** (cat. no. 6265.0); and the standard data service **Underemployed Workers, Australia** (cat. no. 6265.0.40.001) for 1994 and 1995.

NEXT SURVEY

24 The ABS plans to conduct this survey again in September 2006.

ACKNOWLEDGMENT

25 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act 1905**.

RELATED PUBLICATIONS

26 ABS publications which may be of interest include:

Job Search Experience, Australia, cat. no. 6222.0
Labour Force, Australia, cat. no. 6202.0
Labour Force Experience, Australia, cat. no. 6206.0
Labour Mobility, Australia, cat. no. 6209.0
Labour Statistics: Concepts, Sources and Methods, cat. no. 6102.0.55.001
Persons Not in the Labour Force, Australia, cat. no. 6220.0
Working Arrangements, Australia, cat. no. 6342.0
Australian Labour Market Statistics, cat. no. 6105.0
Barriers and Incentives to Labour Force Participation, cat. no. 6239.0

27 Current publications and other products released by the ABS are listed in the **Catalogue of Publications and Products** (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site <<https://www.abs.gov.au>>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

Glossary

GLOSSARY

Centrelink

Centrelink is a statutory authority responsible for delivering a range of Commonwealth government services, including registering of people for job search assistance and income support.

Duration of insufficient work

The duration of insufficient work is the length of time underemployed workers have been working less than 35 hours a week. As periods of insufficient work are recorded in full weeks and rounded down, this results in a slight understatement of duration.

Employed

People aged 15 years and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four-week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or

- on strike or locked out; or
 - on workers' compensation and expected to return to their job; or
- were employers or own account workers who had a job, business or farm, but were not at work.

Full-time workers

Employed people who usually worked 35 hours or more a week (in all jobs) or others who, although usually worked less than 35 hours a week, worked 35 hours or more during the reference week.

Fully employed workers

Employed people who:

- worked full time during the reference week (including people who usually work part time but worked full time in the reference week); or
- usually work full time but worked less than 35 hours in the reference week for non-economic reasons (such as illness or injury, leave holiday or flextime, or personal reasons); or
- part-time workers who would not prefer to work additional hours.

Labour force

The civilian population aged 15 years and over can be split into two mutually exclusive groups: the labour force (employed and unemployed people) and persons not in the labour force.

Level of highest educational attainment

Level of highest educational attainment identifies the highest achievement a person has attained in any area of study. It is defined as the highest educational attainment a person has achieved, and is not a measurement of relative importance of different fields of study.

Looking for work with more hours

Looked for work with more hours at some time during the four weeks up to the end of the reference week.

Main English-speaking countries

The main English-speaking countries are the United Kingdom, Ireland, Canada, South Africa, the United States of America and New Zealand.

Mean duration of insufficient work

The mean duration of insufficient work is obtained by dividing the aggregate number of weeks a group has had insufficient work by the number of people in that group.

Mean preferred number of extra hours

The mean preferred number of extra hours is obtained by dividing the total preferred number of extra hours reported by a group by the number of people in that group.

Median duration of insufficient work

The median duration of insufficient work is obtained by dividing underemployed workers into two equal groups, one comprising people whose duration of insufficient work is above the median, and the other comprising people whose duration is below it.

Part-time workers

Employed people who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work during the reference week.

Preferred number of extra hours

The number of extra hours a week an underemployed worker would have preferred to work.

Reference week

The week preceding the week in which the interview was conducted.

Status in employment

Employed people classified by whether they were employees, employers, own account workers, or contributing family workers.

Underemployed workers

Underemployed workers are employed people who would prefer, and are available for, more hours of work than they currently have. They comprise:

- part-time workers who would prefer to work more hours and were available to start work with more hours, either in the reference week or in the four weeks subsequent to the survey
- full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available). It is assumed that these people would prefer to work full time in the reference week and would have been available to do so.

Usual number of hours

The number of hours usually worked in a week.

Abbreviations

The following symbols and abbreviations are used in this publication:

ABS	Australian Bureau of Statistics
ASCED	Australian Standard Classification of Education
CAI	computer assisted interviewing
ILO	International Labour Organization
LFS	Labour Force Survey
n.f.d.	not further defined
RSE	relative standard error
SACC	Standard Australian Classification of Countries
SE	standard error

Educational Attainment (Appendix)

APPENDIX 1 EDUCATIONAL ATTAINMENT

CLASSIFICATION OF EDUCATION

In 2001, the **ABS Classification of Qualifications (ABSCQ)** (cat. no. 1262.0) was replaced by the **Australian Standard Classification of Education (ASCED)** (cat. no.1272.0). The ASCED is a national standard classification which can be applied to all sectors of the Australian education system including schools, vocational education and training and higher education. ASCED replaces a number of classifications previously used in administrative and statistical systems, including the ABSCQ. The ASCED comprises two classifications: Level of Education and Field of Education.

Level of Highest Educational Attainment can be derived from information on Highest Year of School Completed and Level of Highest Non-school Qualification. The derivation process determines which of the 'non-school' or 'school' attainments will be regarded as the highest. Usually the higher ranking attainment will be self-evident, but in some cases some Secondary Education is regarded, for the purposes of obtaining a single measure, as higher than some Certificate level attainments.

The following decision table is used to determine which of the responses to questions on Highest Year of School Completed (coded to ASCED Broad Level 6) and Level of Highest Non-school Qualification (coded to ASCED Broad Level 5) will be regarded as the highest. It is emphasised that this table was designed for the purpose of obtaining a single value for the output variable Level of Highest Educational Attainment and is not intended to convey any other ordinality.

Decision Table: Level of Highest Educational Attainment							
ASCED LEVEL OF EDUCATION CODES	Certificate n.f.d. (500)	Certificate III or IV n.f.d. (510)	Certificate IV (511)	Certificate III (514)	Certificate I or II n.f.d. (520)	Certificate II (521)	Certificate I (524)
Secondary Education n.f.d. (600)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Senior Secondary Education n.f.d. (610)	Senior Secondary n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Senior Secondary n.f.d.	Senior Secondary n.f.d.	Senior Secondary n.f.d.
Year 12 (611)	Year 12	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 12	Year 12	Year 12
Year 11 (613)	Year 11	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 11	Year 11	Year 11
Junior Secondary Education n.f.d. (620)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 10 (621)	Year 10	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 10	Certificate II	Year 10
Year 9 (622)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 8 (623)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 7 (624)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I

The decision table is also used to rank the information provided in a survey about the qualifications and attainments of a single individual. It does not represent any basis for comparison between differing qualifications. For example, a person whose Highest Year of School Completed was Year 12, and whose Level of Highest Non-school Qualification was a Certificate III, would have those responses crosschecked on the decision table and would as a result have their Level of Highest Educational Attainment output as Certificate III. However, if the same person answered 'Certificate' to the highest non-school qualification question, without offering any further detail, it would be crosschecked against Year 12 on the decision table as 'Certificate not further defined'. The output would then be 'Year 12'. The decision table, therefore, does not necessarily imply that one qualification is 'higher' than the other.

Populations and Data Items List (Appendix)

APPENDIX 2 POPULATIONS AND DATA ITEMS LIST

DATA AVAILABLE ON REQUEST

The ABS has a range of data available on request from the Underemployed Workers Survey. This section lists the data items and populations which relate to the survey. More detailed breakdowns of some data items may also be available on request.

The population(s) for a particular data item refers to the person in the survey to whom the data item relates. Where alternative output categories are available for the same data item, these are shown and the data item name is followed by a bracketed numeral (e.g. Country of birth (2)).

For more information about ABS data available on request, contact Linda Fardell on Canberra (02)

6252 6562, or by facsimile on (02) 6252 7512, or by email to <linda.fardell@abs.gov.au>.

Population 1:

Employed persons.

Population 2:

Full-time workers.

Population 3:

Part-time workers.

Population 4:

Part-time workers who would prefer more hours.

Population 5:

Part-time workers who would prefer more hours who had been looking for work with more hours or were available to start work with more hours in the reference week or within four weeks.

Population 6:

Underemployed part-time workers.

Population 7:

Underemployed workers

Data items		Populations
1	State or territory of usual residence	All
	New South Wales	
	Victoria	
	Queensland	
	South Australia	
	Western Australia	
	Tasmania	
	Northern Territory	
	Australian Capital Territory	
2	Area of usual residence	All
	Capital city	
	Balance of state/territory	
3	Region of usual residence	All
	Standard labour force dissemination regions	
4	Sex	All
	Males	
	Females	
5	Marital status	All
	Married	
	Not married	
6	Relationship in household	All
	Family member	
	Husband, wife or partner	
	With dependants	
	Without dependants	

	Lone parent	With dependants Without dependants	
	Dependent student Non-dependent child Other family person		
	Non-family member		
	Lone person Not living alone		
	Relationship not determined		
7A	Country of birth and period of arrival		All
	Born in Australia		
	Born overseas	Arrived before 1971 Arrived 1971-1980 Arrived 1981-1990 Arrived 1991-2000 Arrived 2001 to survey date	
7B	Country of birth (1)		All
	Born in Australia		
	Born overseas	Born in main English-speaking countries Born in other than main English-speaking countries	
7C	Country of birth (2)		All
	Born in Australia		
	Born overseas	Oceania and Antarctica North-West Europe Southern and Eastern Europe North Africa and the Middle East South-East Asia North-East Asia Southern and Central Asia Americas Sub-Saharan Africa	
8	Age group (years)		All
	15-19		
	20-24		
	25-34		
	35-44		
	45-54		
	55-59		
	60-64		
	65 and over		
	Note: Single years were collected		
9	Underemployment status		7
	Worked less than 35 hours in reference week for economic reasons		
	Part-time workers who would prefer more hours who were available to start work with more hours in the reference week or within four weeks		
	Looking and available to start		
	Not looking but available to start		
10A	Full-time or part-time status		All
	Full-time workers		
	Part-time workers		
10B	Full-time or part-time status (1)		All
	Employed persons	Full-time workers Worked 35 hours or more in the reference week Worked less than 35 hours in the reference week For non-economic reasons For economic reasons	
		Part-time workers Would not prefer to work more hours Would prefer to work more hours Prefers more part-time hours Prefers full-time hours	
11	Whether fully employed		All
	Fully employed		
	Part-time workers who would prefer more hours and persons who worked less than 35 hours in the reference week for economic reasons		
12	Status in employment		All

Employee	
Employer	
Own account worker	
Contributing family worker	
13 Number of hours worked in the reference period	4-7
0-5	
6-10	
11-15	
16-20	
21-29	
30-34	
35 or more	
Note: Single hours were collected	
14 Type of insufficient work	4-6
Full-time	
Part-time	
15 Duration of current period of insufficient work	4-7
1-3 weeks	
4-12 weeks	
13-51 weeks	
52 weeks or more	
Note: Single weeks were collected	
16 Level of highest educational attainment	4-7
Postgraduate Degree	
Graduate Diploma/Graduate Certificate	
Bachelor Degree	
Advanced Diploma/Diploma	
Certificate III/IV	
Certificate I/II	
Certificate not further defined	
Year 12	
Year 11	
Year 10 or below	
Other education	
Level not determined	
No educational attainment/attendance	
17 Whether would move interstate if offered a suitable job	4-7
Would move interstate	
Would not move interstate	
Might move interstate	
Did not know	
18 Whether would move intrastate if offered a suitable job	4-7
Would move intrastate	
Would not move intrastate	
Might move intrastate	
Did not know	
19 Whether would prefer to change occupation to work more hours	4-7
Would prefer to change occupation	
Would prefer not to change occupation	
No preference	
20 Whether would prefer to change employer to work more hours	4-7
Would prefer to change employer	
Would prefer not to change employer	
No preference	
21 Whether looking and/or available	4-6
Had been looking for work with more hours	
Looking and available to start	
Looking and available in the reference week	
Looking and not available in the reference week but within four weeks	
Looking and not available to start	
Had not been looking for work with more hours	
Not looking and available to start	
Not looking but available in the reference week	
Not looking and not available in the reference week but within four weeks	
Not looking and not available to start	
21A Whether available and/or looking	4-6
Available to start work with more hours	
Available in the reference week	
Looking	

	Not looking	
	Available within four weeks (but not the reference week)	
	Looking	
	Not looking	
	Not available to start work with more hours	
	Looking	
	Not looking	
22	All steps taken to find work in the last four weeks	4-6
	Asked current employer for more work	
	Contacted prospective employers	
	Registered with Centrelink	
	Checked Centrelink touchscreens	
	Checked factory noticeboards	
	Contacted an employment agency	
	Looked in newspapers	
	Searched internet sites	
	Answered a newspaper advertisement for a job	
	Advertised or tendered for work	
	Contacted friends or relatives	
	Other steps taken to find work	
	Had not been looking for work with more hours	
23	Whether registered with Centrelink	4-6
	Registered with Centrelink for job search assistance	
	Not registered with Centrelink for job search assistance	
	Had not been looking for work with more hours	
24	Preferred number of extra hours	4-6
	Less than 10	
	10-19	
	20-29	
	30 or more	
	Note: Single hours were collected	
25	Main difficulty in finding work	4-6
	Had been looking for work with more hours	
	Own ill health or disability	
	Considered too young by employers	
	Considered too old by employers	
	Unsuitable hours	
	Too far to travel/transport problems	
	Lacked necessary skills or education	
	Language difficulties	
	Insufficient work experience	
	No vacancies in line of work	
	Too many applicants for available jobs	
	No vacancies at all	
	Difficulties with ethnic background	
	Difficulties in finding child care	
	Other family responsibilities	
	Other difficulties	
	No difficulties reported	
	Had not been looking for work with more hours	
26	Usual number of hours worked	4-6
	1-5	
	6-10	
	11-15	
	16-20	
	21-29	
	30-34	
	Note: Single hours were collected	
27	Preferred total number of hours	4-6
	Less than 30	
	30-34	
	35-39	
	40 or more	
	Note: Single hours were collected	
28	Owner manager of incorporated enterprise (OMIE) status	All
	Employee (not OMIE)	
	Owner manager of incorporated enterprise	
	Owner manager of unincorporated enterprise	
	Contributing family worker	

Supplementary Surveys (Appendix)

APPENDIX 3 SUPPLEMENTARY SURVEYS

SUPPLEMENTARY SURVEYS

The Monthly Population Survey program collects data on particular aspects of the labour force. The following is an historical list of supplementary surveys to the monthly labour force surveys. Data from these surveys are available on request and can be obtained by contacting the ABS.

	cat. no.	Frequency	Latest issue
Barriers and Incentives to Labour Force Participation, Australia	6239.0	Biennial	2004-2005
Career Experience, Australia	6254.0	Discontinued	November 2002
Career Paths of Persons with Trade Qualifications, Australia	6243.0	Discontinued	Final issue 1993
Child Care, Australia	4402.0	Irregular	June 2002
Education and Work, Australia	6227.0	Annual	May 2005
Employee Earnings, Benefits, and Trade Union Membership, Australia	6310.0	Annual	August 2004
Forms of Employment, Australia	6359.0	Irregular	November 2004
Job Search Experience, Australia	6222.0	Annual	July 2005
Labour Force Experience, Australia	6206.0	Biennial	February 2005
Labour Force Status and Educational Attainment, Australia	6235.0	Discontinued	Final issue 1994
Labour Force Status and Other Characteristics of Families, Australia(a)	6224.0	Discontinued	Final issue 2000
Labour Force Status and Other Characteristics of Migrants, Australia	6250.0	Irregular	November 2004
Labour Mobility, Australia	6209.0	Biennial	February 2004
Locations of Work, Australia	6275.0	Irregular	June 2000
Multiple Jobholding, Australia(b)	6216.0	Irregular	August 1997
Participation in Education, Australia	6272.0	Discontinued	Final issue 1999
Persons Not in the Labour Force, Australia	6220.0	Annual	September 2005
Persons Who had Re-entered the Labour Force, Australia	6264.0.40.001	Discontinued	Final issue 1995
Persons Who Have Left the Labour Force, Australia	6267.0.40.001	Discontinued	Final issue 1994
Retirement and Retirement Intentions, Australia	6238.0	Biennial	2004-2005
Retrenchment and Redundancy, Australia	6266.0	Discontinued	July 2001
Successful and Unsuccessful Job Search Experience, Australia	6245.0	Discontinued	Final issue 2000
Superannuation, Australia	6319.0	Discontinued	Final issue 1995
Underemployed Workers, Australia	6265.0	Annual	September 2005
Working Arrangements, Australia	6342.0	Irregular	November 2003
Work-Related Injuries, Australia	6324.0	Irregular	September 2000

(a) Latest data available June 2003, from the ABS website cat. no. 6291.0.55.001 annual, or on request.

(b) Latest data available on request July 2001.

Technical Note

TECHNICAL NOTE DATA QUALITY

INTRODUCTION

1 Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19

chances in 20 (95%) that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

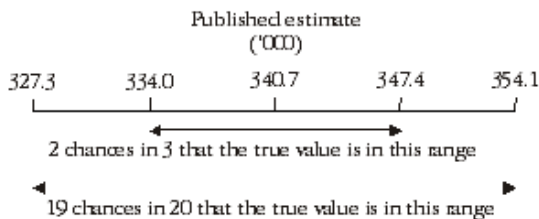
2 Due to space limitations, it is impractical to print the SE of each estimate in the publication. Instead, a table of SEs is provided to enable readers to determine the SE for an estimate from the size of that estimate (see table T1). The SE table is derived from a mathematical model, referred to as the 'SE model', which is created using data from a number of past Labour Force Surveys. It should be noted that the SE model only gives an approximate value for the SE for any particular estimate, since there is some minor variation between SEs for different estimates of the same size.

CALCULATION OF STANDARD ERROR

3 An example of the calculation and the use of SEs in relation to estimates of persons is as follows. Table 5 shows the estimated number of female underemployed part-time workers was 340,700. Since this estimate is between 300,000 and 500,000, table T1 shows that the SE for Australia will lie between 6,350 and 8,100 and can be approximated by interpolation using the following general formula:

$$\begin{aligned}
 &SE\ of\ estimate \\
 &= lower\ SE + \left(\left(\frac{size\ of\ estimate - lower\ estimate}{upper\ estimate - lower\ estimate} \right) \times (upper\ SE - lower\ SE) \right) \\
 &= 6,350 + \left(\left(\frac{340,700 - 300,000}{500,000 - 300,000} \right) \times (8,100 - 6,350) \right) \\
 &= 6,700\ (rounded\ to\ the\ nearest\ 100)
 \end{aligned}$$

4 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 334,000 to 347,400 and about 19 chances in 20 that the value will fall within the range 327,300 to 354,100. This example is illustrated in the following diagram.



5 In general, the size of the SE increases as the size of the estimate increases. Conversely, the RSE decreases as the size of the estimate increases. Very small estimates are thus subject to such high RSEs that their value for most practical purposes is unreliable. In the tables in this publication, only estimates with RSEs of 25% or less are considered reliable for most purposes. Estimates with RSEs greater than 25% but less than or equal to 50% are preceded by an asterisk (e.g.*3.2) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs of greater than 50%, preceded by a double asterisk (e.g.**0.3), are considered too unreliable for general use and should only be used to aggregate with other estimates to provide derived estimates with RSEs of less than 25%.

MEANS AND MEDIANS

6 The RSEs of estimates of mean duration of insufficient work, median duration of insufficient work

and mean preferred number of extra hours are obtained by first finding the RSE of the estimate of the total number of persons contributing to the mean or median (see table T1) and then multiplying the resulting number by the following factors:

- mean duration of insufficient work: 1.6
- median duration of insufficient work: 2.5
- mean preferred number of extra hours: 0.7

7 The following is an example of the calculation of SEs where the use of a factor is required. Table 5 shows that the estimated number of male underemployed part-time workers was 176,100 with a median duration of insufficient work of 21 weeks. The SE of 176,100 can be calculated from table T1 (by interpolation) as 5,000. To convert this to an RSE we express the SE as a percentage of the estimate or $5,000/176,100 = 2.8\%$.

8 The RSE of the estimate of median duration of insufficient work is calculated by multiplying this number (2.8%) by the appropriate factor shown in paragraph 6 (in this case 2.5): $2.8 \times 2.5 = 7.0\%$. The SE of this estimate of median duration of insufficient work is therefore 7.0% of 21, i.e. about 1 (rounded to the nearest whole week). Therefore, there are two chances in three that the median duration of insufficient work for males that would have been obtained if all dwellings had been included in the survey would have been within the range 20-22 weeks, and about 19 chances in 20 that it would have been within the range 19-23 weeks.

PROPORTIONS AND PERCENTAGES

9 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

10 Considering the example from paragraph 3, of the 340,700 female underemployed part-time workers, 121,400 or 35.6% had insufficient work for 52 weeks or more. The SE of 121,400 may be calculated by interpolation as 4,300. To convert this to an RSE we express the SE as a percentage of the estimate, or $4,300/121,400 = 3.5\%$. The SE for 340,700 was calculated previously as 6,700, which converted to an RSE is $6,700/340,700 = 2.0\%$. Applying the above formula, the RSE of the proportion is:

$$RSE = \sqrt{(3.5)^2 - (2.0)^2} = 2.9\%$$

11 Therefore, the SE for the proportion of females who have a current period of insufficient work of 52 weeks or more is 1.0 percentage points ($= (35.6/100) \times 2.9$). Therefore, there are about two chances in three that the proportion of females who have a current period of insufficient work of 52 weeks or more was between 34.6% and 36.6% and 19 chances in 20 that the proportion is within the range 33.6% to 37.6%.

DIFFERENCES

12 Published estimates may also be used to calculate the difference between two survey estimates (of numbers or percentages). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between

[illegible]

Mean duration of current period of insufficient work	3 800	3 400	3 100	1 400	2 000	800	1 200	800	3 700
Median duration of current period of insufficient work	9 500	8 000	8 300	4 600	4 800	2 300	12 400	2 700	8 200
Mean preferred number of extra hours	1 100	1 000	800	500	600	300	400	300	500
All other estimates	1 800	1 400	1 400	700	800	400	500	400	1 200

. . not applicable

(a) Refers to the number of people contributing to the estimate.

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